

Based on the Affidavit of Brian G. Morin, it is clear that the invention claimed in the present patent application was jointly conceived prior to May 6, 1997. Furthermore, the affidavit establishes that the inventors continued to diligently work of the invention until the date the parent patent application was filed, November 21, 1997.

Claims 17-36 have been cancelled. Newly added independent Claims 37, 43 and 49 all contain a limitation on particle release count, and consolidate earlier presented claims. The following table correlates matter newly presented in the dependent claims with the support for the claims in the Specification.

Claim 48 (non-volatile residue)	pg. 10, lines 3-7 and pg. 15, line 20 to pg. 16, line 1
Claim 49 (consisting essentially of poly(ethylene terephthalate fibers))	pp. 5, lines 7-9
Claim 52 (non-volatile residue)	pg. 10, lines 3-7 and pg. 15, line 20 to pg. 16, line 1
Claim 55 (textured POY yarn)	pg. 5, line 15 to pg. 6, line 5

Applicants have filed a Supplemental Information Disclosure Statement, relative to three Japanese patent documents, which were cited in a corresponding application in Thailand. For the following reasons, (1) JP-A-5[1993]-125658; (2) JP-A-63[1993]-021968; and JP-A-56[1981]-026061, are not believed to be relevant to the patentability of the claimed invention.

The problem to be solved by the subject invention is to minimize particle release from polyester fabric used as wipers. The wipers are useful in cleanrooms, where particulate release may damage sensitive electronic components, etc. While it was well known that fabrics may become contaminated during the manufacturing process, such as from airborne dirt, it was not recognized that the migration of particulates with the polyester fiber itself may be a source of contamination arising from the use of such wipers.

Applicant's solution to the problem is to heatset the fabric at a temperature of from 180° to 300° C, thereby providing dimensional stability to the fabric, while minimizing the generation of particulates.

The aforementioned Japanese patent applications are directed to polyester copolymer fibers, which are used in fabric construction. The motivation to use such copolymer fibers is in some cases the high shrinkage of such fibers, or the dimensional stability of such fibers. While the prior art references suggest that the shrinkage or dimensional stability may be achieved by heat treating the fabrics at relatively low temperatures, the prior art references do not suggest that (1) low temperature heat setting may effect the particle release characteristics of the fibers / fabric; or (2) to use fabrics containing the polyester copolymer fibers as cleanroom wipers. Furthermore, the prior art references do not teach the source of the problem to be solved, namely the generation of particulate matter, arising from heat setting polyester fiber at high temperatures.

Applicants submit that the claims are in condition for allowance and respectfully request the same.

Respectfully requested,

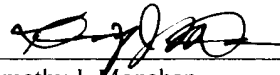
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to The Commissioner of Patents and Trademarks, PO Box 1450, Alexandria, VA 22313, on August 27, 2003, along with a postcard receipt.



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Amendment B
Clean copy of claims
Claims 37 – 56

37. (new) An article comprising a fabric wiper constructed of continuous filament, polyester yarn, wherein the fabric has been heat set at a temperature of from 180° to 300° F, and the fabric has not been heated above a temperature of 300° F, wherein the wiper is characterized by at least one of the following features:

(i) the wiper has been presaturated with a solvent and sealed in a package, and the wiper has a particle release count of particles greater than 0.5 microns of 75 million particles per square meter or less as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2;

(ii) the wiper has been sealed in a package while dry, and the wiper has a particle release count of particles greater than 0.5 microns of 30 million particles per square meter or less as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2; and / or

(iii) the wiper has an unlaundered particle release count of particles greater than 5 microns of 25 million particles per square meter or less, as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2.

38. (new) The article of Claim 37, wherein the wiper has been presaturated with a solvent comprised of water and C₁-C₈ alcohol, and sealed in a package, and the wiper has a particle release count of particles greater than 0.5 microns of 75 million particles per square meter or less as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2.

39. (new) The article of Claim 37, wherein the wiper has been sealed in a package while dry, and the wiper has a particle release count of particles greater than 0.5 microns of 30

million particles per square meter or less as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2.

40. (new) The article of Claim 37, wherein the wiper has an unlaundered particle release count of particles greater than 5 microns of 25 million particles per square meter or less, as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2.

41. (new) The article of Claim 37 wherein the wiper is woven or knitted, the wiper has a weight of from 1 to 9 ounces per square yard, and the wiper has an absorbance capacity of 3.75 milliliters per meter or greater, according to IEST-RP-CC004.2 § 7.1.

42. (new) The article of Claim 37, wherein the fabric is heatset at a temperature of from 200° - 275° F.

43. (new) An article comprising a fabric wiper constructed of continuous filament polyester yarn, wherein the fabric has been heat set at a temperature of from 180° to 300° F, and the fabric has not been heated above a temperature of 300° F, wherein the wiper is characterized by at least one of the following features:

(i) the wiper has been presaturated with a solvent and sealed in a package, and the wiper has a particle release count of particles greater than 0.5 microns of 75 million particles per square meter or less as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2; or

(ii) the wiper has been sealed in a package while dry, and the wiper has a particle release count of particles greater than 0.5 microns of 30 million particles per square meter or less as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2.

44. (new) The article of Claim 43 wherein the wiper is woven or knitted, the wiper has a weight of from 3 to 7 ounces per square yard, and the wiper has an absorbance capacity of 3.75 milliliters per meter or greater, according to IEST-RP-CC004.2 § 7.1.

45. (new) The article of Claim 43, wherein the fabric is heatset at a temperature of from 200° - 275° F.

46. (new) The article of Claim 43 wherein the fabric has been heatset while being held flat, and has a linear shrinkage of less than 5% when exposed to heat of 175° F for 5 minutes.

47. (new) The article of Claim 43, wherein the wiper has a size ranging from 6 inches by 6 inches to 12 inches by 12 inches, and the wiper has a fused edge.

48. (new) The article of Claim 43, wherein the wiper has a non-volatile residue of 0.005 grams per square meter or less, as measured by short term extraction according to IEST-RP-CC004.2 § 6.1.2.

49. (new) An article comprising a fabric wiper, wherein the fabric has been heat set at a temperature of from 180° to 300° F, and the fabric has not been heated above a temperature of 300° F, wherein the wiper is characterized by at least one of the following features:

(i) the wiper has been presaturated with a solvent and sealed in a package, and the wiper has a particle release count of particles greater than 0.5 microns of 75 million particles per square meter or less as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2; or

(ii) the wiper has been sealed in a package while dry, and the wiper has a particle release count of particles greater than 0.5 microns of 30 million particles per square meter or less

as measured by Biaxial Shake Test IEST-RP-CC004.2 § 5.2; and the wiper consists essentially of poly(ethylene terephthalate) fibers.

50. (new) The article of Claim 49, wherein the wiper is woven or knitted from continuous filament yarn.

51. (new) The article of Claim 50, wherein the wiper has a weight of from 1 to 9 ounces per square yard, and the wiper has an absorbance capacity of 3.75 milliliters per meter or greater, according to IEST-RP-CC004.2 § 7.1.

52. (new) The article of Claim 51, wherein the wiper has a non-volatile residue of 0.005 grams per square meter of less, as measured by short term extraction according to IEST-RP-CC004.2 § 6.1.2.

53. (new) The article of Claim 52, wherein the fabric has been heatset while being held flat, and has a linear shrinkage of less than 5% when exposed to heat of 175° F for 5 minutes.

54. (new) The article of Claim 52, wherein the wiper has a size ranging from 6 inches by 6 inches to 12 inches by 12 inches.

55. (new) The article of Claim 50, wherein the continuous filament yarn is a textured, POY (partially oriented yarn).

56. (new) The article of Claim 49, wherein the fabric is heatset at a temperature of from 200° - 275° F.